

EXHIBIT 90

REDACTED

Message

From: [REDACTED]
Sent: 11/28/2016 5:12:47 AM
To: [REDACTED]
CC: [REDACTED]
Subject: Re: Ads Quality Reporting

Hey everyone,

Sorry for the delayed response. [REDACTED] and Nitish have made a lot of good points from the Ads Quality side. I'll just summarize and add a few points.

Our main objective is to win publisher trust through additional transparency, but for all of these features, we see a lack of publisher trust causing them to make suboptimal decisions:

- 1) **DRS**: publishers can directly opt out. [REDACTED]
- 2) **RPO**: we see publishers using AdX pricing rules for yield management purposes (when we'd like them to set their floors low). We also see publishers use third-parties (who have less data) to try to optimize reserve prices at the same time as RPO. [REDACTED]
- 3) **EDA**: we see a number of creative ways that pubs try to circumvent EDA, [REDACTED]

In terms of where pubs would like this data surfaced, I conducted a poll during SF user groups:

- 1) Everyone was comfortable having the data in QT
- 2) The pubs that pay for data transfer were fine having it in data transfer
- 3) No pub wanted a separate, standalone dashboard (they didn't want another page to navigate to, QT is familiar to them, they wanted some ability to slice, etc)

I also think QT would be more extensible than a dashboard down the road.

I'm happy to prioritize metrics and dimensions if that is helpful based off the feedback I've heard from pubs.

Is getting a few metrics for RPO, DRS, and EDA in QT something we can do in the Seuss timeframe? (I offered to help code as a 20% project, but [REDACTED] said he didn't want me getting near the reporting code base :)

Thanks,
[REDACTED]

On Fri, Nov 18, 2016 at 7:25 PM [REDACTED] wrote:

Ah, thanks for clarifying [REDACTED]! Apologies for the incorrect assumption.

The publisher quotes shared in the email and PRD are all trust-centric. While there may be actionable data derived from QT slicing and dicing, it does sound like the biggest ROI feature we can build is an insights dash.

Next steps after that can be surfacing suggestions via insights framework and exposing top level metrics in QT to let pubs explore. Does that sound reasonable?

Best,
[REDACTED]

On Fri, Nov 18, 2016 at 7:15 PM [REDACTED] wrote:

Also, [REDACTED] could you provide a priority ordered list of new metrics/dimensions and compatibilities?

Best,
[REDACTED]

On Fri, Nov 18, 2016 at 5:46 PM [REDACTED] wrote:

Yes all information (metrics, traffic slice control vs treatment) are already in the logs and just need be aggregated offline. Significance testing may need to do online at QT though because that depends on the slice and data size in a report query specified by users.

On Fri, Nov 18, 2016 at 5:39 PM [REDACTED] wrote:
[REDACTED]

[REDACTED], Nitish - this sounds like an offline process, correct? I.e., it is not something we'd need to be part of the streaming pipeline, or am I misunderstanding it?

Also, what are the "different pairs of traffic slices"? How are those defined?

On Fri, Nov 18, 2016 at 3:14 PM, [REDACTED] wrote:

Nitish you are spot on.

On Fri, Nov 18, 2016 at 3:09 PM, Nitish Korula <[REDACTED]> wrote:

Thanks, [REDACTED].

[REDACTED] has probably thought about this the most, and can correct me if I'm wrong. As I see it, we would need to do the following:

1. Look at {revenue, match rate, and RPM} for AdX and AdX + (DFP) remnant for different pairs of traffic slices.
2. For each pair of slices being compared, provide raw lift numbers, or report no statistically significant difference if they are very close / the absolute numbers are small.

The slices to look at are EDA vs non-EDA (distinguished by XFP optimization experiment id), Reserve Price Optimization-enabled traffic vs. RPO holdback (Mendel experiment), and Dynamic Revenue Share-enabled traffic vs. DRS holdback (again Mendel experiment).

[REDACTED], is that largely right? Should we be distinguishing the slices differently?

Thanks,
Nitish

On Fri, Nov 18, 2016 at 2:52 PM, [REDACTED] wrote:

Hey everyone,

I wanted to start a thread to follow up on Ads Quality Reporting from the Commit #2 meeting. [REDACTED]

Let me know if there is any additional info I can provide. This is by far the top ask from pubs for ads quality features.

Some quotes lifted from the PRD that come directly from pubs:

- ???Happy with all [Ads Quality features], as long as they have visibility and control???
- ???I wish there was some reporting to show how much EDA helps??? if it does???
- ???If Google provided more reporting to help us understand the impact on our business from each of these features, I could more confidently answer [if the features are good for my business]???
- ???How can we trust optimized pricing without additional reporting and data???
- "EDA is a black box - Google says we are getting [REDACTED] from it but we have no way of monitoring or verifying that"
- ???How can we decide whether or not to opt into DRS without knowing the uplift we should expect???

I'm happy to scope this ask down as small as need be, but I'd like to make some good faith gesture towards pubs in Seuss that we acknowledge their concerns and give them a sense of impact for these features (currently [REDACTED] across all pubs). Currently, some pubs think the reason we don't offer reporting is b/c we are trying to hide something / subvert their interests, and I'd like to at least start to show them the impact.

Thanks,
[REDACTED]

--

Sent from Gmail mobile. Please excuse brevity or typos.

--
[REDACTED]